

1. (currently amended) Device for measuring the pressure of blood, intended to engage with a section (16) for measuring the pressure of blood flowing in a pipe (14), the pressure measurement section (16) comprising, in a substantially rigid wall (34), a hole (36) which is sealed by a closure element (38), the internal face (40) of which is in contact with the blood and the external face (42) of which is in contact with the ambient air, it being possible to elastically deform or displace the closure element (38) overall along a deformation or displacement axis (A-A), which is substantially orthogonal to its general plane, under the effect of the blood pressure, the pressure measurement device comprising a load sensor (26) secured to a support structure (20, 22) designed to support the pressure measurement section (16) in such a way that the load sensor (26) is placed substantially facing the closure element (38), along the deformation axis (A-A), the load sensor (26) being designed to be in contact, via the axial end of a sensitive member (52), with the external face (42) of the closure element (38) so as to measure the force applied axially to the internal face (40) of the closure element (38) by the blood pressure, in order to calculate therefrom the value of this pressure, characterized in that:

- in order to operate a measurement, the load sensor (26) co-operates with the external face (42) of the associated closure element (38) only by direct contact of the ~~load sensor~~ (26) sensitive member (52) with said external face (42), said sensitive member (52) and said external face being free to come into and out of contact with each other;

- the device (10) comprises means (58) for the relative axial displacement of the sensitive member (52), or of the measurement section (16), with respect to the support structure (20, 22), towards the closure element (38);

- the device (10) comprises a control system of the means (58) for the axial displacement of the sensitive member (52), or of the measurement section (16), such that, during an initial adjustment phase of the axial position of the sensitive member (52) with respect to the external face (42) of the associated closure element (38), the sensitive member (52) comes to contact with the external face (42) of the closure element (38) and applies a given initial pretensioning force (F_0), in order to make the pressure measurement device (10) suitable for measurement of blood pressure greater than the ambient air pressure and for measurement of blood pressure less than the ambient air pressure.

12. (currently amended) Process for controlling a device (10) for measuring the pressure of blood, intended to engage with a section (16) for measuring the pressure of blood flowing in a pipe (14), the pressure measurement section (16) comprising, in a substantially rigid wall (34), a hole (36) which is sealed by a closure element (38), the internal face (40) of which is in contact with the blood and the external face (42) of which is in contact with the ambient air, it being possible to elastically deform or displace the closure element (38) overall along a deformation or displacement axis (A-A), which is substantially orthogonal to its general plane, under the effect of the blood pressure, the pressure measurement device comprising a load sensor (26) secured to a support structure (20, 22) designed to support the pressure measurement section (16) in such a way that the load sensor (26) is placed substantially facing the closure element (38), along the deformation axis (A-A), the load sensor (26) being designed to be in contact, via the axial end of a sensitive member (52), with the external face (42) of the closure element (38) so as to measure the force applied axially to the internal face (40) of the closure element (38) by the blood pressure, in order to calculate therefrom the value of this pressure,

characterized in that, during an initial adjustment phase of the axial position of the sensitive member (52) with respect to the external face (42) of the associated closure element (38), the sensitive member (52), or the measurement section (16), is axially moved, with respect to the support structure (20, 22), towards the closure element (38) or towards the axial end of the sensitive member (52), such that the sensitive member (52) comes [[to]], from out of contact, into contact with the external face (42) of the closure element (38) and applies a given initial pretensioning force (F_0), in order to make the pressure measurement device (10) suitable to measurement of blood pressure greater than the ambient air pressure and to measurement of blood pressure less than the ambient air pressure.